



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/770,913	02/02/2004	William H. White	019530-000720US	1683

20350 7590 11/17/2004

TOWNSEND AND TOWNSEND AND CREW, LLP  
TWO EMBARCADERO CENTER  
EIGHTH FLOOR  
SAN FRANCISCO, CA 94111-3834

EXAMINER

NGUYEN, DONGHAI D

ART UNIT PAPER NUMBER

3729

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/770,913

Applicant(s)

WHITE, WILLIAM H.

Examiner

Donghai D. Nguyen

Art Unit

3729

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 21-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3-29/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of Group II (Claims 21-29) and cancellation of Group I & III (claims 19-20 and 35-38) in the reply filed on September 09, 2004 is acknowledged.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 21-3 and 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5,208,976 to Bess et al in view of US Patent 5,466,117 to Resler et al.

Regarding claims 21 and 22, Bess et al disclose a system for using within a surface mount production line having a conveyor for receiving a printed circuit board, and for moving the printed circuit board through the surface mount production line, the system comprising: a concurrent programming system (3) containing first and second programming sites (340-342), a pick and place system (2) for picking up first and second electronic devices (501, 511, 512) from one or more tray shuttles (5), and for placing the first and second electronic devices within the first and second programming sites, respectively; and a central control unit (1) for communicating with the conveyor (7), the concurrent programming system (3), and the pick and place system (2), the central control unit directing the conveyor to move the printed circuit board

Art Unit: 3729

permitting the pick and place system to place the first and second electronic devices on the printed circuit board after the devices are programmed (Col. 6, line 60 to Col. 7, line 20); except that Bess et al do not disclose the first and second electronic devices being programmable in a concurrent manner and independent of each other.

Resler et al teach the step of programming the first and second electronic concurrently and independent of each other (Col. 6, lines 46-48) for increasing the number of devices programmed within a period of time (Col. 1, lines 40-43). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Bess et al to have the first and second electronic devices being programmable in a concurrent manner and independent of each other as taught by Resler et al for increasing the number of devices programmed within a period of time.

Regarding claim 23, Bess et al, as modified, disclose a step of moving the pick and place device in three dimensions except moving the pick and place device along a track or rail. At the time the invention was made, it would have been obvious matter of design choice to a person of ordinary skill in the art to use a track or rail system to mobilize the pick and place device, because Applicant has not disclosed that utilize a track or rail system provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention equally well with either the robotic structure taught by Bess et al or the claimed track or rail because both perform the same function of pick and place a programmable electrical device. It would have been an obvious matter of design choice to further modify Bess et al. to obtain the invention as specified in claim 23.

Art Unit: 3729

Regarding claim 25, Bess et al disclose four parallel asynchronous processes (control 1, robotic 2, programming site 3, and assembly line 6) upon which operations of the system depend.

Regarding claim 26-28, Bess et al disclose the pick and place device includes self-teaching capability, controller and the system (1) making a request provides the location of which to pick up a device (inherent, Col. 7, lines 10-20).

Regarding claim 29, see Bess et al's Col. 3, lines 25-40 or Col. 3, line 61 to Col. 4, line 3.

4. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bess et al in view of Resler et al as applied to claim 21 above, and further in view of US Patent 3,975,261 to Beck.

Bess et al as modified do not disclose the one or more sensors for detecting when the conveyor delivers a printed circuit board to the system; Beck discloses one or more sensors (20) for detecting the position of an object on the conveyor (Abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modified Bess et al to have one or more sensors for detecting when the conveyor delivers a printed circuit board to the system as taught by Beck for detecting the position of an object on the conveyor.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Art Unit: 3729

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donghai D. Nguyen whose telephone number is (703) 305-7859. The examiner can normally be reached on Monday-Friday (9:00-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter D. Vo can be reached on (703) 308-1789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DN



**A. DEXTER TUGBANG**  
**PRIMARY EXAMINER**